

## APPENDIX G

The hazardous waste summary is extracted from *Version I Base Realignment and Closure (BRAC) Cleanup Plan, Jefferson Proving Ground, Madison, Indiana*, April 1994.

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# APPENDIX F

## OTHER ANCILLARY BCP MATERIALS

### Sites in the Southern Cantonment Area/Off-Base

*JPG-01: Building 185, Old Incinerator* This unit is a 556 square foot incinerator used from 1941 to 1978 to burn small ammunition as well as paper products. Particulate matter that had settled on the surrounding soil and within the stack itself are of concern. The particulate matter may have included hazardous substances from disposed materials. The building recently stored open containers of waste polyurethane contaminated with methylene chloride and full/empty containers of chlorine gas. This site is part of the ongoing RI/FS.

*JPG-02: Building 177, Water Quality Laboratory.* This site generates minor quantities of laboratory wastes, including cleaning detergent and residual sample waste. According to a USEPA Environmental Audit conducted in 1990, no further investigation of the site is warranted.

*JPG-03: Building 177, Waste Water Treatment Pima (WWTP).* This 682-square foot unit consists of primary and secondary treatment for sanitary wastes as well as some light industrial waste (boiler blowdown and photographic wastes). In the past, infiltration of surface water into the Sanitary Sewer System (see JPG-55) caused the concentrations of suspended solids to exceed the NPDES limits. A fish kill was attributed to cyanide release from the unit in 1978. The facility has since changed film processing methods to exclude black and cyanide use, thereby mitigating similar contamination problems. A Sewage Sludge Application Area (see JPG-45) and a satellite accumulation area are also located adjacent to this plant. This site is part of the ongoing RM.

*JPG-04: Burn Area South of Engineers Road.* This 2-acre unit is located just south of Engineers Road and east of Papermill Road. It was used to burn explosive-contaminated waste and fuses in the mid-1970s and has since been overgrown with vegetation. This site is part of the ongoing RM.

*JPG-05: Abandoned Landfill* This 1-acre unit just south of JPG-04 consists of trenches and mounds that were used to landfill photographic wastes and other refuse. This area was the only on-installation landfill south of the firing line and was used from 1941 to the 1970s. It was the probable recipient of pesticide containers, ash from the old incinerator (JPG-01) and paint wastes. This site is part of the ongoing RM.

*JPG-46: Burn Area* This area consists of four trays used in open burning (OB) unserviceable propellants. They were installed in 1986, spread out in an area measuring 200 feet by 200 feet. Before the use of these pans, demilitarization of propellants was conducted on gravel placed over the soil. This unit is located just east of Shun Pike Road in the southeast portion of the facility.

Extensive use of herbicides have historically been used to clear vegetation. This site is part of the ongoing RI/FS.

JPG-07: Wood Storage Pals. This am is located on the airport runway and is used to stockpile wood debris prior to open burning by the facility's fine department.. This site is part of the ongoing RI/FS.

JPG-08: PCP Wood Storage Pile.. This pile is located on the airport, due west of the hangar, about 50 feet from the Wood Storage Pile (M-0M. The PCP-traced wood is accumulated prior to disposal at an off-site landfill. This site is part of the ongoing RI/FS.

*JPG-09: Disposal Ana, Behind Building 211.* Ibis area was reportedly used in 1957 to dispose of red Wad and barium sulfate waste generated during the inert munitions process. An unknown amount of methylene chloride was also reportedly dumped between the rails of the railroad tracks behind Building 211. This site is part of the ongoing RI/FS.

*JPG-10: Building 208, Photographic Laboratory* This site has been used since the mid 1970s to process film related to the facility's activities. Discharges of cyanide and silver to the sanitary sewer occurred prior to 1980. A silver recovery process is currently being used. Following removal of the silver, the waste chemicals are fed into a distillation apparatus, eliminating the need to dispose of chemicals in the sanitary sewer. No further action is planned for this unit.

*JPG-M.- Building 333, Incinerator.* The unit is used to treat burnable waste, including paper products, debris, plywood, polyurethane, and iron oxide. The unit may have been contaminated with methylene chloride. The incinerator has been in use since 1978. This site is part of the ongoing RI/FS.

JPG-12.: Buildings 281 & 295, Indoor Firing Ranges. These buildings were used to test small arms for training until the early 1980s. Lead dust from the firing of ammunition is the primary environmental concern. The RI/FS is being conducted to determine the extent of lead contamination. This site is part of the ongoing RI/FS.

*JPG-14.: Burn Area Near Gate 19.* This 0.5-acre area was reportedly used from the 1950s to the 1970s to burn construction debris as well as unserviceable propellants. In addition, trichloroethylene (77217) was disposed at the unit. Currently, the area is overgrown by tall vegetation and the extent of this area is indiscernible. This site is part of the ongoing RI/FS.

JPG-15: Gate 19 Landfill. Empty pesticide containers, incinerator ash, polyurethane/methylene chloride wastes, red lead, and TCE reportedly have been disposed in this 12-acre site. The landfill is currently undergoing closure. The RI/FS is underway to study the migration of contaminants.

JPG-27, 28, 29: Solvent Disposal Pits. These sites are located adjacent to Buildings 602, 617, and 279, respectively, which were all ammunition assembly plants. Buildings 617 and 279 have been deactivated. From 1970 to 1978, waste solvents/degreasers (including TCE) were disposed

in 3-foot diameter, 3-foot deep gravel-filled pits. An estimated 4 to 500 gallons of TCE may have been deposited in these pits. The current RI/FS addresses the three solvent disposal pits. As part of the investigation, subsurface soil samples were collected at each of these three sites, and monitoring wells were installed to determine if groundwater had been affected.

JPG-30: Fire Training Pit. This 200-square foot, 2-foot deep pit is located adjacent to the airport runway. Wood soaked with petroleum products was ignited to train fire-fighting personnel. Although currently inactive, petroleum products have likely entered subsurface soils due to incomplete combustion. This site is part of the ongoing RI/FS

JPG31, 69, 94: Building 105. IPG-31 is a temporary storage area located within a metal shop where waste fluids such as cutting oil, cooling fluids, and naphthalenic oils are temporarily stored before they are properly disposed of offsite. The use of 55-gallon drums within steel containment pans makes the potential of release very low.

JPG-69 contains a former solvent tank and lead casting operations, both of which have been deactivated. Small machinery parts were cleaned in the dip tank, which probably was used from the early 1940s until the late 1980s. The lead casting process, used to make lead hammers, was put out of service in 1986.

JPG-94 is a locomotive maintenance pit located within the building. It is a 36-foot-long by 5-foot-wide trench covered with steel plates. The trench allowed access to the underside of locomotives and may have received fluids that were drained, spilled, or leaked from the locomotives. No records exist documenting whether the trench was cleaned out after locomotive maintenance ceased. It is assumed that the pit became operational along with the building. It is not known when the locomotive maintenance operations ceased.

Of the three sites located within Building 105, JPG-94 is the only one requiring further evaluation in the ongoing RI/FS.

*JPG-33: Building 204, Insecticide/Herbicide Storage.* The building has a concrete floor, and waste quantities are reported to be small and appropriately handled. Any accidental spills inside the facility would be contained; however, past practices are not well known. A small building just east of Building 204 appears to be used for mixing herbicides and rinsing containers. The area is contained, yet there is possibility of contamination via runoff. This site is part of the ongoing RM.

JPG-34, 82, 91: Building 227, Weapons Maintenance Workshop. JPG-34 consists of a concrete pad situated approximately 30 yards east of the building. Spills have occurred in the past. This workshop was replaced in 1990 by the Satellite Accumulation Shed (MG-82). The ongoing RM will assess the status of a former UST site; and if necessary it will be remediated by the USACE in coordination with the IDEM.

JPG-82 is a shed east of Building 227, adjacent to JPG-34, above. Both the shelter and the pad were used to store waste solvents, waste oil and lubricants, and waste paint from the operations conducted in the workshop. This site is part of the ongoing RI/FS.



JPG-91 is a Magnaflux Fluid Satellite Accumulation Shed. No further action is planned, based on Groundwater Consultation No. 38-26-KQ80-92 (USAEHA).

*JPG-35, 49, 57, 58, 62, 80: Building 186, Equipment Maintenance Shop.* This building contains six AREEs described below.

JPG-49, the Antifreeze Accumulation Area, consists of a 55-gallon drum to collect used antifreeze and an antifreeze recycling unit. This recycling system is located within Building 186, which is an enclosed structure with a concrete floor. No further response action is planned based on Groundwater Consultation No. 38-26-KQ80-90 (U.S. Army Environmental Hygiene Agency (USAEHA)).

JPG-57 consists of a 1,000-gallon waste oil UST (Tank No. 17) located inside and outside of this shop, constructed of galvanized steel that is painted for corrosion protection, and an indoor tank that feeds waste oil to the outdoor tank. The USTs are approximately 8 years old and currently active. No release has been reported or observed, and no response action is planned.

JPG-58, an Oil/Water Separator located just outside of Building 186, consists of a concrete pit 3 feet by 3 feet in size and manages wastewater from the Floor Drain and Wash Rack (JPG-62, below). Oily liquids are piped off the top of the fluid and are disposed of in the Tank No. 17 Waste Oil UST (JPG 57, above). The wastewater from the Oil/Water Separator is discharged to the Sanitary Sewer System (JPG-55). Solids are collected and disposed of at an off-site sanitary landfill annually. No further response action is planned based on Groundwater Consultation No. 38-26-KQ80-90 (USAEHA).

JPG-62 consists of a floor drain within the building and a wash rack immediately outside. The floor drain consists of a trench about 18 inches wide and 12 inches deep that spans the length of the shop. The wash rack is a 4 foot by 20 foot gate over a 3-foot-deep concrete pit that collects liquids from vehicular washing and maintenance activities. This site is part of the ongoing RI/FS.

JPG-80 is an accumulation area for used batteries. There is no evidence of a release from this area, and no further action is planned.

JPG-36: Building 305, Hazardous Waste Storage Area, This unit is used as a temporary storage area (less than 90 days) of RCRA hazardous waste prior to removal by DRMO contractors. Waste stored here has included Stoddard solvent, PCB-contaminated oil, electrical transformers, asbestos, copper slats, scrap propellant, and bagged ash. A closure plan has been approved for Building 305, as required under RCRA. This site is part of the ongoing RI/FS.

JPG-37: Transformers. JPG currently has a program in place for inventory, control, sampling, and ultimate removal of all PCB-containing transformers. No further response action is planned.





JPG-39, 93: Building 116, Locomotive Maintenance Area. JPG-39 is a concrete trench in the floor of the building that may have been used as part of the maintenance of locomotives. No further information regarding this site exists. This site is part of the ongoing RI/FS.

JPG-93 is a potential solvent pit. A break in the concrete next to the north side of the building resembles a rock-coveted area similar to the solvent pits at Buildings 602, 617, and 279 (JPG-27, 28, 29). The RI/FS is currently evaluating these areas.

JPG-41: Debris Dump North of Airport This unit is located to the west of the new incinerator (Building 333). The unit was reported to be a solid waste disposal area used for dumping construction debris from approximately 1955 to 1972. but appears to have been used more recently for the disposal of brush, woods, and tree trimmings. No further action is planned for this area.

JPG-42: Papermill Road Disposal Area. This unit consists of an open field with few distinguishing features. It was used from approximately 1949 to 1968 for unknown purposes. Ground staining, along with debris, mounded material, vehicles, and containers were noted in successive aerial photographs. The area is presently overgrown, but stressed. There is no information regarding the nature of potential contaminants at this site. This site is part of the ongoing RI/FS.

*JPG-43: DRMO Area. This site, located at the northeast corner of Paper Mill Road and Infantry Road (adjacent to Building 189), consists of a flat, gravel-covered open storage area approximately 150 feet wide and 300 feet long. The area is currently used to store scrap metal, scrap equipment, and materials from the facility prior to being sold to offsite vendors. A small portion is used to store spent lead-acid vehicle batteries to offsite recycling. The southeastern corner of the site was used prior to 1980 for the storage of waste oil and transformers with PCB concentrations of less than 50 parts per million. This site is part of the ongoing RI/FS.*

JPG-44: Yellow Sulfur Disposal Area. *This area was identified in previous Investigations. An analysis of area samples confirmed the presence of sulfur as the pH in the area is generally less than two. This site is part of the ongoing RI/FS.*

*JPG-45: Sewer Sludge Drying Beds. Four areas located in the vicinity of Building 185 and Building 177 were formerly used as drying beds for the sludge generated at the WWTP. In the past, high concentrations of silver and cyanide were reported in the WWTP. This site is part of the ongoing RI/FS.*

JPG-46: Potential Munitions Dump Site. A historical installation map indicated an area near the intersection of Tokyo Road and the railroad tracks that may have been used to dispose of ammunition. The accuracy of the map showing the location of the disposal area is questionable: no records exist that would indicate the type and quantity of materials dumped at this location. Also, an initial geophysical survey found no evidence of a dump site. This site is part of the ongoing RI/FS.

*JPG-47: Gator Z Open Burning Arias.* 'this area is located is the southeastern portion of the facility, known as 'Gator Z.' Debris from materials used during mine tasting ,vas stockpiled and burned in a flat, open. nonvegetated arm Since there was a potential for ordnance components to be embedded in the refuse, it was burned before disposal. The unit was operated from 1985 until 1991, when the scrap was approved for disposal is the new incinerator, (JPG- 11). This site is part of the ongoing RI/FS.

JPG-48-9 Gator Z Mine Scrap Disposal Area. Tan unit consists of an open pit, with approximate dimensions of 12 feet x 25 fen x 5 fen. *The pit* was reportedly a disposal area for the components of 'bouncing betty' mines. The only scrap disposed of here may be the steel carcasses of these mines, but these may contain explosive residuals. It is not known when the unit wet: fast used, and it reportedly was last used in the late 1970. This aim is put of the ongoing RI/FS.

JPG-49: Building 186, Antifreeze Accumulation Area, See JPG-35.

*JPG-50. - Building 179, Former Chemical Store.* The unit consists of a 25 feet by 15 feet former shower room where 2 drums of photographic wastes had bees stored from 1979 to October 1980. Building 279 was certified to be clean, gad was closed is September 1993. A RI/FS is underway for the solvent pit located just outside Building 279 (JPG-29).

JPG-51: Waste Storage at Hangar. This 20 square foot room a located within the roam airport hangar. Non-hazardous wastes are stored in 55-gallon drums directly on the concrete ground surface. No secondary containment system exists, but storage is indoors mad over a concrete floor. No further response anion is planned, per Groundwater Consultation No. 38-26- (USAEHA).

JPG-54: Building 148A, Former Transformer Stomp Mss. The unit is located outdoors. north of Building 108A in a fenced-is area. This unit stored transformer that may have been filled with PCB oils. The time of operation is unknown. No releases were documented or observed. No further response action is planned; per Groundwater Consultation No. 38-26- (USAEHA).

JPG-55: Sanitary Sewer System This is a regulated unit, located throughout the southern porter of the facility. It consists of below-grade pipes that are used to convey sanitary wastewater from the photo development laboratory and boiler blowdown from the facility generators. The unit has: been in use since 1941. No further response action is planned.

JPG-56: Storm Sewer System. The unit, located throughout the tern portion of the facility, consists of concrete catch basins. open ditches, and below grade lines that are used to convey runoff away from developed portions of the facility. The unit currently manages stormwater runoff only. The unit has been in use stow 1941. No further response action is planned per Groundwater Consultation No. 38-26-RQ80-92 (USAEHA).

JPG-57: Building 186, Wants Oil UST (Tank No. 17). See JPG-35.

JPG-58: Oil/Water Separator. See JPG-35.

JPG-59: Building 110, Oil/Water Separator. The unit is located adjacent to the driveway adjacent to the front of Building 110. The unit is comprised of a concrete pit with a lid about 3 feet by 3 feet in surface area, and about 5 feet deep, containing an Oil/Water Separator. No releases have been observed or reported. Oil/grease and solids from the carwash and garage in Building 110 were managed until 1980. No further response action is planned per Groundwater Consultation No. 38-26-KQ80-92 (USAEHA).

JPG-60: Building 136, Pig Shop. JPG-60 is located just west of the building consisting of an approximately 20 foot by 20 foot area on a 6-inch thick asphalt pad that is used for sandblasting operations. Vehicles and other equipment are sandblasted there prior to being painted inside Building 136. Red primer containing lead was used in the past as an installation coat. Waste sand is collected and analyzed for hazardous contamination. The unit began operations in 1942 and is still active. This site is part of the ongoing RI/FS.

JPG-61 is located outdoors, between Buildings 136 and 121 on asphalt. It consists of steel contaminated pans and garbage cans used to store empty paint cans and associated wastes such as rags, etc. No further response action is planned. per Groundwater Consultation No. 38-26- (USAEHA).

JPG-62: Building 186, Floor Drain and Wash Rock. See JPG-35.

JPG-63: Building 115, 208, 325, Photo Lab Drains. The unit consists of the floor drains and associated piping beneath Buildings 208, 325, and 115. The floor drains in each of the buildings were used to convey spent photo developing solutions, which contained high levels of cyanide and silver, to the sanitary sewer system. The use of cyanide-bearing photo development chemicals ceased in 1980. Building 115 was used as the photo development lab prior to 1970; Building 208 has been used for this purpose since 1970. Building 325 was used as the x-ray photo development lab from 1965 to 1987. X-ray film is now processed in Building 208. No further response action is planned.

JPG-64: Building 602, Former UST and Soil Staging Area. Contaminated soil was excavated in 1988 during the removal of a leaking UST and was stockpiled in the parking lot east of the building. The soil was contaminated with No. 2 fuel oil, which had leaked from tanks in the area. A sample of the excavated soil showed TPH levels of 146 milligrams per kilogram (mg/kg). The soil has subsequently been disposed offsite.

The former UST was utilized to store No. 6 fuel oil. In 1990, the IDEM received notice that No. 6 fuel oil had been released to a ditch near Building 602. This tank (which had already been removed) was identified as the source, since other tanks in the area stored No. 2 fuel oil. This site is part of the ongoing RI/FS.

JPG-65: USTs. Currently there are 37 USTs that were installed between 1941 and 1992 with capacities ranging from 300 to 25,000 gallons. Four of these tanks are in-place but inactive. The tanks have been used for the storage of fuel oil, diesel fuel, leaded and unleaded gasoline.



kerosene, and white gas. The facility began a program to ensure compliance with federal, state, and local regulations. In 1988, 10 inactive tanks were removed, and soil sampling in the excavation indicated that leakage of tank contents has occurred. Some contamination from metals (e.g., lead) may also have occurred. All USTs at the facility are being managed in accordance *with* Indiana UST regulations.

JPG-64: Building 103, Oil Spill. The Building 103 oil spill took place in April 1988 and was caused by the overfilling of an UST at the Central Heating Plant. About 300 gallons of No. 2 Heating Oil were spilled, covering about 600 square feet of soil south of the building. Most of the oil went into a nearby containment ditch, and approximately 65 percent of the spill was recovered from the ditch during the initial spill response. Most of the remainder was removed using absorbents, which were subsequently landfilled or incinerated. According to facility personnel, the spill was cleaned up in 3 hours, and neither the storm water nor groundwater was affected. This area is of concern because of the nature of the contaminants and the lack of soil sample data confirming the cleanup. This site is part of the ongoing RI/FS.

JPG-67: Building 118 Gas Station. This unit consists of an office building (Building 118); a diesel pump house (Building 128); a gasoline pump house (Building 111); the dispensing pumps; and underground piping from three USTs. The unit has been in continuous operation since 1942. The USTs are tested annually. These tanks will not meet the new standards for USTs, due to lack of cathodic protection and spill control. The area is of concern due to the age of the underground piping and the large quantities of fuels, which are managed at the unit. This site is part of the ongoing RM.

JPG-69: Building 105, Solvent Tank/Lead Casting. See JPG-31.

JPG-70: East- West Runway Test Area. This site was used for flare testing. The site is rectangularly shaped and is approximately 50 feet wide and several hundred feet long. The types of wastes that have resulted in the burning of flares have not been documented. Most flares contain magnesium, white phosphorus, sulphur, and either potassium or sodium waste. White phosphorus is poisonous when ingested and is ignitable at ambient temperatures. This site is part of the ongoing RM.

JPG-74: Gator Z, Mine Test Area. This site is located in the southeastern portion of the facility west of the East Perimeter Road between Mine Field Road and a tributary to Harberts Creek "encompassing approximately 220,000 square yards". There are 26 mine test pits placed in two rows parallel to Mine Field Road. Water and sediment samples were collected from Harberts Creek in January and July 1992. Silver was detected in both sample efforts. The exact source may be the Mine Test Area, the WWTP, or runoff from the sludge application area. This site is part of the ongoing RI/FS.

JPG-76: Optics Water Supply Wells. Two drinking-water wells, located near the Madison Country Club in downtown Madison, were formerly used to supply JPG with its drinking water. Three USTs, each with a 300-gallon capacity, supplied emergency power to the pumps. These USTs have been removed from the site. Although field screening efforts conducted in May 1993 concluded that the site did not contain significant volatile organic compound (VOC)



contamination, and no further action was recommended for the former USTs at the site. the USAEC has since determined that the site was contaminated and recommended remediation. The USACE completed the field work on this remediation.

JPG-77: Building 610, 611, .III, Low level Radioactive Waste Storage. M1 is a portable facility that has been used for temporary storage of depleted uranium (DU) penetrators after they are recovered from the impact field. Presently, Buildings 610 and 611 are used for this purpose. They have been in use since 1986 and are all covered by a license from the Nuclear Regulatory Commission (NRC).

JPG-78, 79: Building 506. JPG-78 is comprised of solvent distillation stills. No further action is planned, based on the Groundwater Consultation No. 38-26-KQ80-92 (USAEHA).

JPG-79 is a 1,1,1-TCA accumulation area. No further action is planned, based on the Groundwater Consultation No. 38-26-KQ80-92 (USAEHA).

JPG-80: Building 186, Spent Lead/Acid Battery Storage. See JPG-35.

JPG-81: Building 111, Waste Filler/Methylene Accumulation. No further action based on Groundwater Consultation No. 38-26-KQ80-92 (USAEHA).

JPG-82: Building 127, Satellite Accumulation Shed. See JPG-34.

*JPG-83: Building 600, Scrap Propellant Accumulation and Storage Shed.* No further action is planned, based on Groundwater Consultation No. 38-26-KQ80-92 (USAEHA).

JPG-84: Building 534, Scrap Propellant Accumulation Area. No further action is planned, based on Groundwater Consultation No. 38-26-KQ80-92 (USAEHA).

JPG-85: Building 534 TCU Stomp. No further action is planned, based on Groundwater Consultation No. 38-26-KQ80-92 (USAEHA).

JPG-86: Building 325, Scrap Fuse Accumulation Area, No further action is planned, based on Groundwater Consultation No. 38-26-KQ80-92 (USAEHA).

JPG-87: Portable Oil/Water Separator. No further action is planned, based on Groundwater Consultation No. 38-26-KQ80-92 (USAEHA).

JPG-88: Building 117, Cyclone. No further action is planned, based on Groundwater Consultation No. 38-26-KQ80-92 (USAEHA).

*JPG-89: Former Building 136, Water Cistern.* No further action is planned, based on Groundwater Consultation No. 38-26-KQ80-92 (USAEHA).

*JPG-90: Buildings 186, 127, 216, Safety Kleen Cleaners.* No further action is planned, based on Groundwater Consultation No. 38-26-KQ80-92 (USAEHA).





JPG-91: Building 117, Maganaflux Satellite Accumulation. See JPG-34.

JPG-92: Asbestos-containing Material ACM have been identified in many facility buildings, including pipes insulation, roofing, siding, and tiles. An asbestos survey was conducted in 1988 and again in 1993. Some asbestos abatement has occurred and *the materials* were disposed of at the Gate 19 landfill. Currently, ACM are managed through the Asbestos Manages Plan in accordance with state and federal regulations.

JPG-93: Building 116, Potential Solvent Pit. See JPG-39.

JPG-94: Building 105, *Locomotive* Maintenance Pit. See JPG-31.

JPG-95: Building 259, Discharges Fill Pipe. This site consists of a horizontal pipe that exists s the building and extends to the edge of the nearby railroad tract:. There is a black tarlike material on the ground surface at the end of the pipe, which appear: to be some type of POT: it a assumed that the pipe was formerly used to discharge some type of hydrocarbon. Leaching or infiltration of the possible hydrocarbon material is considered the only potential some a the site. 'Tbis site is pan of the ongoing RI/FS.

JPG-96: Building 181, Former USTs. Two USTs *were* located at this sine. One bad a capacity of 500 gallons, the other 650 gallons; both were removed in the Spring 1942. RCS of soil samples collected from the excavation raged from 14.4 to 650 mg/kg TPH. This site is part of the ongoing RI/FS.

JPG-97: Potential *Well/Tanks at Artillery and Infantry* Roads. 'this site of two vertical pipes that rise approximately 3 feet above two former building floors. The history and former uses of the site are unknown. This site is part of the ongoing RI/FS.

JPG-98: Concurs Vault Near Airfield Railroad Tracks. There is no information on tire forma use of the site, but it appear: to be a vault for underground piping that possibly leads to USTs at the former fuel storage area across the road northwest of the vault. The vault, the associated piping, and potential USTs would constitute possible contaminant sources. The site will be remediated by USACE in coordination with the IDEM.

JPG-99: Potential Unexploded Ordnance at Airfield. Reportedly, ere area located on the southwestern side of the northwest-to-southwest runway was used as a mine mortar test Me& This site is part of the ongoing RI/FS.

JPG-100: Flare Test Sites at Airport. These two sites have apparently been used to launch flares for flare testing, according to historical reports. The flares were reportedly launched onto the east-west runway. Most flares contain magnesium, white phosphorus, sulphur, and either potassium or sodium nitrate. This site is part of the ongoing RI/FS.

JPG-101: Potential Mine Test Ana, South d Airfield. This area is characterized by numerous round surface depressions that appear to be the result of possible mine or mortar impact. ,?he



area has long since remained inactive. as evidenced by the thick growth of vegetation. This site is part of the ongoing RI/FS.

JPG-102: Ammunition Storage Igloos. Most of the 32 ammunition storage igloos are located along Igloo Loop at the astern end of the cantonment area: they consist of earth-covered concrete bunkers. Ibis site is put of the ongoing RI/FS.

JPG-103: Potential UXO South of firing Line. There are three possible munitions testing areas: the Rocks Range, the hand-grenade testing area, and the mine test arcs. Potential contaminant sources include UXO and explosive . This site is part of the ongoing RI/FS.

#### Sites in the Northern Firing Range

*JPG-13:* Ammunition Demilitarization Area. This unit, located west of Morgan Road and north of F-firing Line Road. consists of an area used to burn explosive charges from shells and for undefined demilitarization of other munitions. The area was first identified in aerial photographs. but its exact boundaries are unknown.

JPG-16: Ordnance *Disposal* Area. This unit, located at the erection of Morgan and 'C' Roads, consists of a 35-foot by 12-foot by 5-foot unlined pond used for the disposal of munitions collected during cleanup operations at facility ranges. The unit contains numerous corroding shells, which reportedly contain no explosive residues.

JPG-17: Landfill Off York Road *The unit* is on an extension of York Road, just north of 'B' Road and south of *the* 4.5 Mortis Impact Range. It consists of a landfill that was reportedly used to bury inert projectiles and metals recovered from the impact areas, but facility perms could not be certain of all the landfill contorts. <sup>11w</sup> naval size of the landfill is not known, but the unit is located within a clearing in the woods that is approximately 200 feet square in size.

JPG-18: Abandoned Grenade Disposal Wells. These two wells are leased at the northwest corns of tire intersection of Recovery and ' G' Roads. File material radiates that 100 to 200 riot control grenades and other munitions-related material were disposed is the wells. Only one of tire wells has been loaned.

JPG-19: Munitions Test Pond. This unlined pond covers an area approximately 300 fen by 600 feet formerly used to test munitions' performance under wiser. Residual explosive materials are of concern.

JPG-20: Macadam Test Pond. This unit also tested the performance of munitions under water. The water was drained in the 1970s and found to hold no munitions, but the possibility of contamination to the surrounding soil his never been investigated.

JPG-21: Cistern Disposal Sits. 'Ibis site could not be located by facility personae! but is reported to be at the northwest corner of 'T' and Cottrell Roads. File materials indicated that waste fuels were disposed in this cistern.



JPG-22: Brute Area This unit is in the southwest end of the 1,600 east impact arts. just east of Cottrell Road: it consists of 0.25-acre of land used to burn projectiles and propellants. This area was abandoned in 1980.

JPG-23: Detonation Area, *This* unit is located in the north central portion of no, north of Graham Creels and west of Bombfield Road. It consists of about 10-acres used for open detonation (OD) of unserviceable munitions.

JPG-24, 25: Landfills Near Hunting Lodge. These units (1-acre each) managed trash and debris from Old Timbers Lodge; they have become contiguous and indistinguishable. The combined Landfill covers an area of about 100 feet by 100 feet on each side of the access road to the unit. Facility representatives indicated that ordnance may have been disposed in ponds near the landfill

JPG-26: Landfill. This unit is located north of the firing line. and to response action is planned at this time. It was used for approximately 2 years for the disposal of trash and construction debris.

JPG-32: Depleted Uranium Firing Range. This unit is used as an impact area for the testing of munitions containing depleted uranium and is regulated by a NRC license. After firing, the facility attempts to recover the projectiles, but only 25 percent have been recovered. Low level radiation as well as explosive residue and metal contamination are of concern. The preparation of the DU Decommissioning Plan is underway and is being managed by the TECOM.

JPG-38: Unsurfaced Roads. Used motor oil was sprayed on unsurfaced roads for dust control.

JPG-40: Landfill at 4.5 Mortar Impact Range. This unit is located near the northeast corner of the 4.5 Mono Impact Range. The exact wastes managed at this unit (if any) are not known. This unit has been inaccurately identified in many of the facility documents as a JPG-17. However, IPG-17 is actually located south of the 4.5 Mortar Impact Range and is discussed as the Landfill Off York Road. As a result of the inaccurate identification, very little information has been collected regarding the portion of this unit in the northeast corner of the 4.5 Impact Range.

JPG-52: Air Gunnery Accumulation Area This unit is located in the north central portion of the facility, west of Bombfield Road and north of JPG-23. It consists of a 55-gallon drum where sled slugs are collected and stored before they are detonated.

JPG-53: Air Gunnery Scrap Equipment Area. This unit stored scrap equipment that was later placed on the Aircraft Target Range (JPG-71) as targets.

JPG-68: Firing Range Impact Areas. This unit consists of the 50,000 acres north of the firing line. It is estimated that 7.6 million out of 23 million rounds found into this area are unexploded (Government Accounting Office Report #NSLAD-90-42). Residual constituents of propellants and explosives may be present throughout the northern area.

*JPG-71: Air Gunnery Range.* The unit is located in the north-central portion of the facility south of 'K' Road and west of Bombfield Road. It is used by both the IANG and U.S. Air Force as an air gunnery and bombing practice area. The unit consists of 750 acres of relatively flat open field.

*JPG-72: Air Bombed Storage Tank Target Area* This area is located off Center Recovery Road just north of "F" Road. It houses approximately eight storage tanks used as impact range targets.

*JPG-73: Family of Scatterable Minus Ana.* This is a test area approximately 100 yards by 400 yards in size for mines, specifically those designated as Family of Scatterable Mines.

*JPG-75: Bromacil Ana.* This area is located east of Jinestown Road. north of the Faring Lice. This area was identified by aerial photographs as a vegetation-free area approximately 65 to 70 acres in size. Bromacil, an herbicide, was used to clear this area.

#### *Additional Areas Identified in CERFA Report*

The following section describes areas identified during the CERFA site visit and documents search of the IDEM Spill Reports.

POL Release: Approximately 25-30 gallons of hydraulic fluid were released on 5 May 1993 near Bridge No. 1 on Jinestown Road at Middleford Creek in the range area, north of the firing line. The cause was a ruptured hydraulic line on a bushhog. A dike, water skimmer, and containment of exposed soil and water were used to control the release.

Impoundment at Airport: During the automobile drive-through survey conducted in October 1993, a pond containing ammunition boxes west of the airport was identified by environmental personnel. They described a sheen on the surface of the pond, possibly due to decaying organic matter an occurrence that is often observed in shallow ponds at JPG.